From:
 Stevens, Richard

 To:
 Greg Kester

 Cc:
 Bastian, Robert

 Subject:
 RE: Rule updates?

Date: Wednesday, September 09, 2015 8:42:00 AM

When we get around to considering risk management and numeric standard options for moly, these might be our options:

- Ceiling concentration = 75 mg Mo/kg DW
- Cumulative pollutant loading rate = 40 kg Mo/ha (wet weight)
- Pollutant Concentration limit = 40 mg Mo/kg DW.
- Could decide to do nothing

From: Greg Kester [mailto:gkester@casaweb.org]
Sent: Wednesday, September 09, 2015 8:35 AM

To: Stevens, Richard **Cc:** Bastian, Robert

Subject: Re: Rule updates?

Thanks a lot Rick! This is very helpful. If moly risk is small would you expect a statement that

regulation isn't necessary (such as was done for dioxin)? Thanks again! - Greg

On Sep 9, 2015, at 7:28 AM, Stevens, Richard < Stevens.Rick@epa.gov > wrote:

Hi Greg,

Biennial review summaries for 2005, 2007, 2009, and 2011 are posted at http://water.epa.gov/scitech/wastetech/biosolids/. BR 2013 is in progress and BR 2015 will start early next year.

We are planning to release a revamped Biosolids webpage on September 30, 2015. This is part of an effort Agency wide to update approximately 150 websites. Much of the info on the Biosolids webpage will be the same, just reorganized to ensure that EPA's communication efforts reflect our commitment to working as One EPA.

We are addressing TNSSS pollutants, starting with the ten phase I pollutants (i.e., barium, beryllium, manganese, molybdenum, silver, pyrene, 4-Chloroaniline, fluoranthene, nitrate and nitrite). The risk assessments for these pollutants have been peer reviewed and we are addressing peer review comments and revising the draft risk assessment technical background document. Comment responses and a revised report will be circulated for internal review in October 2015. After that we will publish the risk assessment for public comment later this year. There will be a 60 day comment period after which we will need to respond to comments and make decisions as to what additional numeric standards are needed, if any. I don't have a definitive timeframe at this time for all this as priorities change and I often get called off to do other tasks.

Once past the ten, we will screen the balance of the 135 Phase II TNSSS

pollutants that have sufficient data.

What else can I tell you about moly? For the land application scenario for humans, all results, even the very conservative "total ingestion" pathway (which is the sum of all ingestion pathways) were less than levels of concern. Ecological hazards were estimated under the current assessment and found to be below levels of concern.

Of particular interest is exposures to beef and dairy cattle modeled under the pasture scenario. Modeled molybdenum-specific loads were found to be well below the ceiling concentration (i.e., 75 mg/kg). The consistency between the modeled values and the suggested standards indicate that, at the 95th percentile of the distribution, the risk of molybdenum-induced hypocuprosis is small.

Regarding arsenic, there was supposed to be a draft document available this summer for public posting next year, but I believe they are behind schedule. Efforts are ongoing, but so far there has been no dose-response findings yet and no document has been forwarded for Agency review at this time. If you wish to know more, you may want to contact Ila Cote (303-312-6027; Lead) or Janice Lee (919-541-9458; chemical Manager for inorganic arsenic). Rick Stevens

From: Greg Kester [mailto:gkester@casaweb.org]
Sent: Tuesday, September 08, 2015 12:12 PM

To: Stevens, Richard; Bastian, Robert

Subject: Rule updates?

Hi Rick — I hope all is well! I wanted to touch base with you to see if there is any update on the risk assessment and any news you can share. Is there any update you can offer on the risk assessment for the 9 pollutants from the 2003 biennial review, the other 135 pollutants from the TNSSS, any regulatory action or risk assessment update on Molybdenum, any update on the cancer slope factor for arsenic, or any other new of interest related to biosolids? We have two meetings on Thursday, one on biosolids and one on renewable energy and climate change. Any updates you can provide would be greatly appreciated! Thanks very much - Greg

Greg Kester

California Association of Sanitation Agencies Director of Renewable Resource Programs

1225 8th Street, Suite 595 Sacramento, CA 95814

PH: 916 446-0388 Mobile: 916 844-5262 gkester@casaweb.org

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